

OHIO AGRICULTURAL EXPERIMENT STATION
Vegetable Crops Substation, Marietta, Ohio

Department of Horticulture Mimeograph Series No. 214
January 9, 1961

STAKED TOMATO VARIETY TRIALS - 1960

Walter N. Brown*

The 1960 staked-tomato variety trials at Marietta included eleven varieties in six replications and thirty-six varieties replicated two times. Each of the first eleven varieties had been included in either the six or two replication trials in 1959. The results of these trials are presented in the accompanying Tables 1 and 2.

CULTURAL INFORMATION

Seed was sown in hot beds on March 21 and plants set in field on May 14, 1960. A cover crop of barley was plowed down and 600 lbs/A of 10-10-10 was drilled and disked in prior to setting plants. No starter fertilizer was used. Rows were spaced 50" apart with plants spaced 18" in the row with 15 plants per single row plot of 22.5' randomized and replicated either 2 or 6 times. Plants were pruned to two stems by allowing first lateral below first cluster to develop and removing all other laterals to the fifth cluster. First harvest was made on July 16 and the last on August 25. Fruits harvested in the pre-pink stage.

Grades: Established to evaluate the amount and extent of cracking.
Grade No. 1 - Crack-free fruits meeting all specifications of U.S. No. 1; Grade No. 2 - Cracks less than $\frac{1}{2}$ " in length, well healed and otherwise meeting specifications for U.S. No. 1; Grade No. 3 - Cracks longer than $\frac{1}{2}$ ", well healed and otherwise meeting specifications for U.S. No. 2 or better; Culls - all other fruits not meeting specifications of above three grades.

SOURCES OF SEED

Code	Source
A ₂	Abbott and Cobb, 4744-46 Frankford Ave., Philadelphia 24, Pa.
A ₄	Alpha Seeds, Box 1042, Lompoc, Calif.
B ₁	W. Atlee Burpee and Co., Huntington Park @ 18th St., Philadelphia 32, Pa.
C ₂	Campbell Soup Co., G. B. Reynard, Dept. Agr. Res., Riverton, N. J.
F ₁	Ferry-Morse Seed Co., P.O. Box 254, Racine, Wisc.
F ₂	Florida Agr. Exp. Sta., J.M. Walters, Gulf Coast Sta., Bradenton, Fla.
H ₁	Joseph Harris Co., Moreton Farms, Rochester 11, N. Y.
H ₂	Holmes Seed Co., 1017 9th St., S. W., Canton 11, Ohio
K ₂	E. A. Kerr, Exp. Sta. and Products Lab., Vineland, Ontario, Canada
L ₃	Louisiana Agr. Exp. Sta., J.C. Miller, Dept. of Hort., Baton Rouge, La.
O ₁	Ohio Agr. Exp. Sta., W. N. Brown, Dept. of Hort., 1827 Neil Ave., Columbus, O.
O ₂	Ohio Agr. Exp. Sta., L. J. Alexander, Dept. Bot. and Plant Path. Wooster, O.
P ₁	Peto Seed Co., P. O. Box 138, Saticoy, Calif.
S ₂	Francis C. Stokes Seed Co., Vincentown, N. J.
T ₁	Texas Agr. Exp. Sta. P. A. Young, Tomato Disease Lab., Jacksonville, Texas

GENERAL COMMENTS

Weather conditions were generally favorable during the growing season although temperatures were slightly below normal. Fruit size was generally larger and fruit cracking slightly more severe than in 1959.

Footnotes for tables:

- Varieties are ranked in order of early yield of No. 1 grade fruits.
- Figures in () columns 3, 4, and 5 are percentages of total early marketable yields harvested in each grade.
- Percentages of total season's marketable yield harvested to Aug. 3 (Early yield)
- Percentages of total season's marketable yield harvested in each grade.
- Percentages of culls based on gross early yield.
- Percentages of culls based on gross season's yield.
- Average fruit size: marketable weights of fruits divided by number of marketable fruits.

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TABLE I
STAKED TOMATO VARIETY TRIALS - 1960
OAES, MARIETTA, OHIO

(6 Replications)

Variety ^a and Lot Number		Source	Early Yield to August 3					Season's Yield to August 25							
			Pounds of Marketable Fruit per Acre				Culls	Average	Pounds of Marketable Fruit per Acre				Culls	Average	
			No. 1	No. 2	No. 3	Total	(lbs)	Fruit Size ^g	No. 1	No. 2	No. 3	Total	(lbs)	Fruit Size ^g	
8	Hybrid R 1157	89241	F ₁	25,572 (76.4) ^b	7,687 (23.0) ^b	209 (.6) ^b	33,468 (52.3) ^c	1,871 (5.6) ^e	.356	40,044 (67.3) ^d	16,440 (27.6) ^d	3,008 (5.1) ^d	59,492	8,042 (12.0) ^f	.326
6	Cardinal Hybrid	1469	H ₁	20,030 (69.1)	8,873 (30.6)	96 (.3)	28,999 (41.3)	5,550 (16.1)	.467	34,373 (48.9)	32,864 (46.8)	3,008 (4.3)	70,245	15,456 (18.0)	.434
11	Earlicrop Hybrid	1463	H ₁	19,965 (63.8)	11,059 (35.4)	258 (.8)	31,282 (50.3)	1,734 (5.3)	.251	35,954 (57.9)	21,159 (34.1)	5,025 (8.0)	62,138	10,874 (14.9)	.232
7	X88F1(Alpha 88)	T-59	A ₄	19,864 (62.0)	11,753 (36.7)	435 (1.3)	32,052 (63.5)	1,258 (3.8)	.303	29,726 (58.9)	18,715 (37.1)	2,065 (4.0)	50,506	7,526 (13.0)	.286
5	Marietta No. 6	T-60	O ₂	18,755 (85.3)	3,234 (14.7)	--	21,989 (36.8)	3,775 (14.7)	.363	42,964 (72.0)	15,165 (25.4)	1,581 (2.6)	59,710	9,026 (13.1)	.345
2	Queens	1484	H ₁	18,336 (69.9)	7,703 (29.4)	185 (.7)	26,224 (37.7)	1,758 (6.2)	.401	36,357 (52.3)	26,935 (38.7)	6,235 (9.0)	69,527	10,430 (13.0)	.372
12	Penna. Hybrid	T-60	H ₂	15,706 (44.5)	19,013 (53.9)	580 (1.6)	35,299 (56.9)	4,364 (11.0)	.355	24,531 (39.5)	32,953 (53.1)	4,606 (7.4)	62,090	14,157 (18.6)	.329
10	Hotset	T-59	T ₁	14,802 (65.9)	7,435 (33.1)	92 (1.0)	22,331 (45.2)	3,388 (13.1)	.262	31,848 (64.5)	14,772 (30.0)	2,734 (5.5)	49,354	12,909 (20.7)	.244
3	Moreton Hybrid	1495	H ₁	11,535 (43.3)	14,407 (54.1)	393 (2.6)	26,335 (47.6)	2,847 (9.7)	.393	19,385 (35.2)	29,868 (53.9)	6,017 (10.9)	55,270	14,359 (20.7)	.370
4	Glamour	1467	H ₁	9,075 (79.0)	2,412 (21.0)	--	11,487 (23.0)	1,508 (11.6)	.406	26,443 (52.9)	21,853 (43.7)	1,718 (3.4)	50,014	11,705 (19.0)	.349
1	Pritchard	1063	H ₁	8,333 (52.8)	7,203 (45.7)	242 (1.5)	15,778 (30.8)	2,049 (11.5)	.353	20,393 (39.8)	27,419 (53.6)	3,404 (6.6)	51,216	10,769 (17.4)	.335
							4,117								

LSD @ 5% Level

TABLE 2
STAKED TOMATO VARIETY TRIALS - 1960
OAES, MARIETTA, OHIO

(2 Replications)

Variety ^a and Lot Number			Source	Early Yield to August 3					Season's Yield to August 25						
				Pounds of Marketable Fruit per Acre				Culls (lbs.)	Average Fruit Size ^g	Pounds of Marketable Fruit Per A				Culls	Average Fruit Size ^g
				No. 1	No. 2	No. 3	Total			No. 1	No.2	No. 3	Total		
30	F ₁ Hybrid Ohio 8	T-60	H ₂	34,460 (93.0) ^b	2,565 (6.9) ^b	48 (.1) ^b	37,073 (79.1) ^c	5,057 (12.0) ^e	.247	41,672 (88.9) ^d	20.9 (10.8) ^d	145 (3) ^d	46,874	6,630 (12.4) ^f	.250
41	Marietta 31	T-60	O ₂	24,466 (93.5)	1,694 (6.5)	--	26,160 (41.1)	3,194 (10.9)	.452	45,278 (71.2)	16,141 (25.4)	2,202 (3.4)	63,621	8,905 (12.3)	.393
29	F ₁ Hybrid Ohio 5	T-60	H ₂	23,086 (72.4)	8,736 (27.4)	48 (.2)	31,870 (79.0)	3,097 (8.9)	.205	30,177 (74.8)	10,067 (25.0)	96 (.2)	40,340	6,025 (13.0)	.191
23	Ohio Red	C7-58	O ₁	22,312 (79.6)	5,614 (20.0)	121 (.4)	28,047 (46.0)	2,250 (7.4)	.431	37,969 (62.2)	20,037 (32.8)	3,025 (5.0)	61,031	8,518 (12.2)	.395
33	Hybrid 6358	17163	F ₁	21,876 (85.3)	3,775 (14.7)	--	25,651 (43.5)	3,751 (12.8)	.368	47,843 (81.2)	10,527 (17.9)	532 (.9)	58,902	8,615 (12.8)	.293
40	Marietta 27	T-60	O ₂	20,473 (83.3)	4,089 (16.7)	--	24,562 (43.2)	4,767 (16.3)	.406	38,908 (67.3)	16,625 (29.2)	1,960 (3.5)	56,893	10,962 (16.2)	.377
43	Marietta 13	T-60	O ₂	17,375 (73.6)	6,243 (26.4)	--	23,618 (37.8)	2,226 (8.6)	.383	32,863 (52.7)	23,474 (37.6)	6,074 (9.7)	62,411	10,720 (14.7)	.344
31	F ₂ Hybrid Ohio 10	T-60	H ₂	17,206 (73.1)	5,977 (25.4)	363 (1.5)	23,546 (77.8)	5,445 (18.8)	.209	22,433 (74.1)	7,477 (24.7)	363 (1.2)	30,273	8,349 (21.6)	.256
35	Picnic Hybrid	17167	F ₁	17,109 (90.6)	1,694 (9.0)	72 (.4)	18,875 (32.6)	919 (4.6)	.324	41,404 (65.5)	13,794 (23.8)	2,928 (5.1)	57,862	10,672 (21.6)	.285
13	Indian River	T-59	F ₂	16,722 (89.2)	2,444 (10.1)	169 (.7)	19,335 (32.2)	4,235 (18.4)	.393	48,932 (81.2)	8,445 (14.0)	2,758 (4.8)	60,135	8,324 (17.2)	.330
22	Viceroy	T-59	K ₂	16,480 (68.1)	7,719 (31.9)	--	24,199 (51.9)	5,541 (19.6)	.439	28,217 (60.5)	16,891 (36.3)	1,500 (3.2)	46,608	11,906 (20.3)	.410

TABLE 2 Con't.
STAKED TOMATO VARIETY TRIALS - 1960
OAES, Marietta, Ohio

(2 replications)

Variety ^a and Lot Number			Source	Early Yield to August 3				Culls (lbs.)	Average Fruit Size	Season's Yield to August 25					
				Pounds of Marketable Fruit per A.						Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size ^g
				No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
34	Hybrid 5857	17162	F ₁	14,520 (70.4) ^b	6,098 (59.6) ^b	--	20,618 (32.4) ^c	1,282 (5.9) ^c	.453	34,194 (53.8) ^d	27,297 (42.9) ^d	2,081 (3.3) ^d	63,572	6,219 (8.9) ^f	.416
44	Marietta 19	T-60	O ₂	14,495 (80.3)	3,484 (19.3)	72 (.4)	18,051 (31.2)	2,057 (10.2)	.345	40,268 (69.6)	15,754 (27.2)	1,839 (3.2)	57,861	8,082 (12.3)	.310
19	KC 146	T-59	C ₂	14,181 (73.9)	5,009 (26.1)	--	19,190 (28.2)	2,081 (9.8)	.405	40,486 (59.5)	25,506 (37.5)	2,032 (3.0)	68,024	7,018 (9.4)	.399
42	Marietta 11	T-60	O ₂	14,108 (67.4)	6,824 (32.6)	--	20,932 (35.4)	2,105 (9.1)	.297	28,193 (47.6)	28,749 (48.6)	2,250 (3.8)	59,192	7,187 (10.8)	.306
18	CPS 1783	T-59	T ₁	13,963 (90.6)	1,452 (9.4)	--	15,415 (36.4)	2,032 (11.7)	.386	29,015 (68.6)	12,293 (29.1)	992 (2.3)	42,300	8,349 (16.5)	.350
21	Big Early Hybrid	6136	B ₁	13,189 (32.4)	25,264 (62.1)	2,202 (5.4)	40,655 (73.8)	2,420 (5.6)	.444	15,246 (27.7)	33,686 (61.1)	6,171 (11.2)	55,103	6,388 (10.4)	.432
28	Early Wonder Hybrid 1127		H ₂	12,777 (42.3)	16,843 (55.8)	5,808 (1.9)	35,428 (63.0)	2,686 (8.2)	.415	19,940 (35.5)	31,581 (56.1)	4,719 (8.4)		11,858 (17.4)	.387
24	KC 135	T-59	C ₂	12,705 (82.3)	2,686 (17.4)	48 (.3)	15,439 (26.9)	2,710 (14.9)	.449	34,751 (60.6)	20,061 (35.0)	2,541 (4.4)	57,353	9,680 (14.7)	.436
27	Big Johnny Hybrid	T-60	A ₁	12,680 (45.9)	14,423 (52.2)	508 (1.9)	27,611 (52.8)	2,758 (9.1)	.391	19,747 (37.8)	29,717 (56.8)	2,807 (5.4)	52,271	13,842 (20.11)	.388
37	OSU 26-5	55-M	O ₁	12,535 (83.8)	2,420 (16.2)	--	14,955 (29.3)	6,776 (31.2)	.415	27,660 (54.2)	22,046 (43.2)	1,306 (2.6)	51,012	16,068 (24.0)	.385
39	Red Global	T-60	L ₃	11,979 (72.5)	4,307 (26.1)	342 (1.4)	16,528 (25.1)	992 (5.7)	.328	34,339 (52.1)	27,757 (42.2)	3,726 (5.7)	65,822	5,759 (8.0)	.302

TABLE 2 Cont'd
STAKED TOMATO VARIETY TRIALS - 1960
OAES, MARIETTA, OHIO

(2 Replications)

Variety ^a and Lot Number			Early Yield to August 3						Season's Yield to August 25					
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Size ^g	Pounds of Marketable Fruit per A.				Culls (lbs)	Average Fruit Size ^g
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
20	Big Boy Hybrid	6123	B ₁	11,470 (63.6) ^b	6,461 (35.6) ^b	242 (1.3) ^b	18,173 (28.3) ^c	1500 (7.6) ^e	.478	26,886 (41.8) ^d	29,088 (45.2) ^d	8,349 (13.0) ^d	64,323 (15.2) ^f	.459
15	Early Prolific Hybrid	T-60	P ₁	11,204 (44.0)	12,874 (50.5)	1,403 (5.5)	25,481 (45.5)	3,000 (10.5)	.372	19,916 (35.5)	27,297 (48.7)	8,833 (15.8)	56,046 (19.0)	.337
16	Valiant	1479	H ₁	10,938 (36.8)	17,593 (59.2)	1,210 (4.0)	29,741 (60.8)	2,976 (9.1)	.361	13,756 (27.7)	28,265 (57.8)	7,090 (4.5)	48,931 (20.1)	.349
14	Foremost E-21	85209	F ₁	10,623 (53.0)	9,438 (47.0)	--	20,061 (35.3)	2,032 (9.2)	.439	21,054 (37.1)	30,855 (54.3)	4,888 (8.6)	56,797 (13.6)	.412
25	New Wonder Boy Hybrid	T-60	P ₁	10,551 (58.9)	6,800 (38.0)	556 (2.1)	17,907 (33.5)	2,202 (11.0)	.433	15,052 (28.1)	33,904 (63.3)	4,573 (8.6)	53,529 (13.6)	.428
46	Big Red F ₁ Hybrid	T-60	A ₁	9,413 (52.1)	8,421 (46.6)	242 (1.3)	18,086 (30.4)	1,790 (9.0)	.467	18,150 (30.5)	35,332 (59.5)	5,953 (10.0)	59,435 (10.7)	.430
36	Titan Hybrid	17164	F ₁	9,002 (60.3)	5,929 (39.7)	--	14,931 (27.7)	2,933 (16.7)	.431	24,151 (44.9)	28,725 (53.4)	943 (1.7)	53,819 (19.9)	.383
45	Ohio W.R. Jubilee	T-60	O ₂	6,921 (62.0)	4,235 (38.0)	--	11,156 (18.9)	5348 (32.4)	.423	27,975 (47.4)	26,644 (45.1)	4,404 (7.5)	59,023 (22.2)	.387
26	Early Giant Hybrid	1036	H ₂	6,776 (27.7)	16,794 (68.6)	895 (3.7)	24,465 (51.0)	4,283 (14.9)	.424	9,946 (20.7)	33,008 (68.8)	5,057 (10.5)	48,011 (25.3)	.398
17	Stokesdale	SPG	S ₂	6,122 (43.5)	7,526 (53.4)	435 (3.1)	16,793 (34.8) ^d	2,710 (16.1)	.404	10,236 (21.2)	20,521 (52.5)	17,520 (36.3)	48,277 (28.3)	.370
32	Hybrid 7958	17165	F ₁	4,791 (31.6)	9,728 (63.2)	629 (4.2)	15,148 (32.9)	2,057 (12.0)	.444	13,915 (30.2)	27,442 (59.6)	4,719 (10.2)	46,076 (14.8)	.421
38	OSU 3-1	37-M	O ₁	4,162 (53.3)	3,654 (46.7)	--	7,816 (21.9)	2,589 (33.1)	.347	13,697 (38.3)	21,417 (60.0)	605 (1.7)	35,719 (30.5)	.324